

ABSTRACT OF THE DISCLOSURE

A method for performing communication between a base station and a mobile station through a designated channel is disclosed. The method comprises transmitting an access parameter message including fields indicating preamble duration and slot duration having a length of a multiple of given slot duration from the base station to the mobile station, the base station previously knowing each start time point of the slots having the multiple slot duration; transmitting a control message including fields indicating a designated channel number and a data rate from the base station to the mobile station over a common channel; receiving, in the mobile station, the control message and transmitting to the base station an access probe including a preamble having the preamble duration and a succeeding response message beginning at one of the start time points of the slots having the multiple slot duration at the data rate through a designated channel associated with the designated channel number in the control message; and determining in the base station whether the preamble of the access probe is received, beginning at each start time point of the slots having the multiple slot duration.